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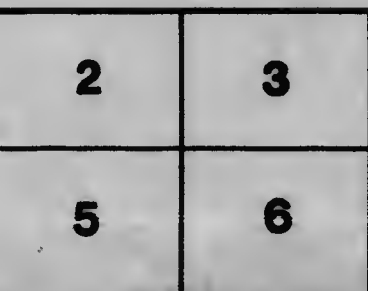
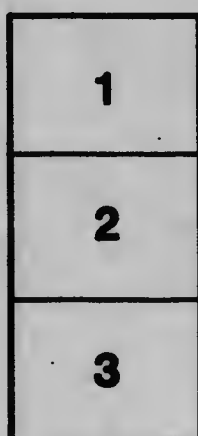
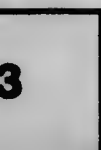
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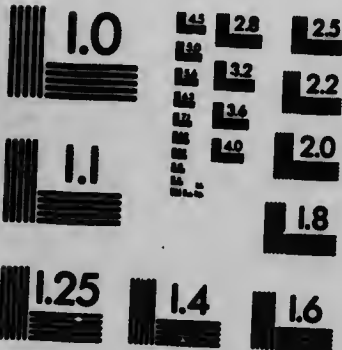
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## Government of the Province of Saskatchewan

DEPARTMENT OF AGRICULTURE

# HINTS TO FLAX GROWERS

Flax can be grown in practically all parts of the North American continent, but much of the flax seed grown in Canada is produced in southern Saskatchewan.

Now that a factory for producing oil from flax has been established at Moose Jaw, the southern country tributary should feel the advantage of a better market and this should also encourage flax growing in the province.

### *The Popularity of Flax as a Crop.*

Many settlers taking up virgin land arrive poorly equipped financially, and the fact that they are able to secure quick returns by sowing flax on the newly broken land in their first year is sufficient reason for them to overlook, for the time being, the detrimental effects the cropping of their new land may have upon its productiveness during the few next ensuing years. Flax seed usually realises a very satisfactory price, and this, combined with the comparatively small bulk of the product per acre as compared with grain, is taken into consideration by men who have to haul their grain many miles in order to market it.

Although flax is not used to any great extent by our farmers for feeding purposes, the chief reason being that it appears to them as paying better to sell than consume, the time is approaching when flax will be used much more on the farm. As a milk producer it is unequalled; as a substitute for new milk in calf raising it is becoming more recognised, and the increasing demand for high quality beef will create a need amongst our best feeders, if not for the flax seed itself, then at least for a byproduct containing some proportion of the oil derived from it.

The flax crop is also of value in Saskatchewan as a means of circumventing the wire worm. On some of the heavy soils of the province the activity of wire worms has made the successful growing of wheat during the first one or two years uncertain. While the wire worm will attack wheat and oats, flax is practically immune and this has been of untold benefit to farmers located on the soil above mentioned.

### *Preparation of the Soil for Flax.*

This plant is not so particular about the kind as it is about the condition of the soil, and responds to a liberal supply of plant food easily available for its use at the outset. It needs a deeply stirred bed that is firm



almost to the top, or has just sufficient loose soil on the surface to cover the seed uniformly. Flax does not thrive when in competition with weeds and should not be sown upon land fall ploughed to a depth of about five inches, and which is dry, lumpy and full of weed seeds that have not germinated. It may be sown on land that has been disced the previous fall, followed by ploughing to a depth of three or four inches about the middle of May. Such land should be packed, rolled or in some manner made firm immediately after ploughing and before being seeded.

When flax is to be sown on land broken in the same season, the prairie sod should be ploughed from four to five inches deep and followed by the packer, roller, float or disc harrow loaded with stone, the object being to press the inverted sods firmly back on to the subsoil. If the breaking is being done prior to May 15, the field may be disc harrowed to a depth of about one and one-half inches, but avoid cutting through the sod or turning sod grass side up.

Follow the disc harrow with a drag harrow until a well pulverised seed bed is secured and then leave the field until the time for sowing the crop shall have come. If the breaking is being done between May 15 and June 5, the preparation of the seed bed should be as set forth above up to the point of disc harrowing. As the season is now getting late it would not be advisable to take time for the more thorough method. In order that the seed may quickly germinate and start to grow it had better be sown at once on the well packed sod, with a disc drill if one is obtainable, if not, with a sharp shoe drill. The seed will then be in moist soil from the start although the desirable soil mulch will not have been prepared. The drill should be followed immediately by a "float" or "planker" or by drag harrows inverted, loaded lightly with poles and fastened together. This treatment will cover the seed to a greater degree and provide some loose earth on the surface. The important points in these methods of preparing newly broken prairie for flax are that the furrows be well packed immediately after ploughing and that all the operations follow one another with no avoidable delay.

#### *Seed must be Free from Weeds.*

As the average farmer need not as yet ask himself what variety of flax he shall grow, it would appear that to secure good seed flax is quite a simple matter, whereas it is most difficult to get good seed in any quantity. According to the experimental farm tests the "La Plata" variety is the best oil producer, while "Premost" has the advantage of being an early variety and what is almost of equal importance, it is wilt resistant.

It was commonly thought that flax must be very exhaustive of soil fertility or at least of some element in the soil essential to the production of the crop. Professor Bolley discovered the cause of the trouble some twelve years ago and found "flax sick soil" was occasioned by the presence of a fungus, *Fusarium lini*, which may be introduced to new soil areas by way of the seed flax and when once in the soil propagates with rapidity."

The remedies are simple and two in number: (a) Flax should not be sown for at least five years on land that has produced a wilt-infected crop, as evidenced by the dying off of many plants at different stages of growth



but chiefly at early stages, and by the scaly appearance of the flax seed. (b) Wilt infected seed (which means practically all) should be treated before being sown.

Flax seed is treated in a similar manner to wheat and by the same solution. Professor Bolley recommends that the formaldehyde solution be made to the strength represented by sixteen ounces avoirdupois of standard 40 per cent. formaldehyde to forty gallons of water. Care must be taken to stir the flax and turn it over from time to time while it is drying, after treatment, in order to break up the lumps. The seed should be treated in not more than five or ten bushel lots at a time.

#### *Sowing and Harvesting the Flax Crop.*

From May 15 to June 5 will be found in the average season to constitute the proper period for sowing this crop. Some of the most extensive and successful flax growers in the province do not hesitate to sow their flax at anytime after spring opens up. Flax usually ripens in Saskatchewan in from eighty-five to ninety days.

#### *Rate of Seeding.*

It will seldom be found necessary or advisable to sow more than eighty pounds or less than thirty pounds of flax seed. The larger quantity should be sown only on a good summerfallow. The proper amount for breaking is from thirty to fifty pounds according to the condition of the soil. The seed should not be sown very deep because it is so small. From three-quarters to one and a half inches is the correct depth; hence the necessity for having the seed bed firm practically right to the surface.

If a surface packer or roller is available it may be used to great advantage after the seeder. When grown for seed, flax should be cut when the seeds are full and ripe, of a good rich characteristic bright brown colour and rattling freely in the boll when shaken or moved. It is not advisable to leave the crop standing after it is fully ripened. It is essential that the crop be dry when threshed.

Some farmers simply run the crop through the binder exactly as in the case of wheat, for instance, but using no twine in the knotter. Others remove the knotting device, place in position the flax harvesting attachment that is obtainable for every make of binder sold in the province, and harvest it in that way. Still others remove only the trip, packers and discharge arms of their binders and run the crop through without gathering it into bundles; the long windrows thus made being raked into piles after the grain has become thoroughly dry. The crop is seldom stacked, usually being threshed from the shock, stook or pile, and the work is done with an ordinary grain separator suitably adjusted. The customary charge for threshing flax seed is from sixteen to twenty cents per bushel, the thresher supplying outfit, teams, men and board (sometimes), while the farmer hauls away the flax seed and boards the teams.



